

Course Prefix/Number/Title: BOT 212 Botany II

Number of Credits: 4

Course Description: Diversity of plants, their classification, anatomy, physiology, and ecology. Includes a general overview of fungi and algae. Plant cells and tissues, photosynthesis, translocation and transpiration, root/stem/leaf structure and function, secondary growth, growth and development, flowers/fruits/seeds, survey of Kingdom Monera/Protista/Fungi/Plantae, viruses, prions, and ethnobotany.

Pre-/Co-requisites: BIOL 150 or Instructor Approval

Course Objectives: Demonstrate an understanding and proficiency with the following concepts:

- 1. Structure and function of vascular plants, particularly Coniferophyta and Anthophyta.
- 2. Diversity of plants and plant-like organisms.
- 3. The ecology and evolution of plant and plant-like organisms.
- 4. The significance of these organisms to human kind.

Instructor: Janelle Green

Office: NSC 113

Office Hours: MWF 11:00-12:00PM and M 2:00-3:00PM

Phone: 701-228-5472

Email: Janelle.a.green@ndus.edu

Lecture/Lab Schedule: MWF 10:00AM-10:50AM (Lecture) and W 2:00-3:50PM (Lab)

# Textbook(s):

- Raven, P.H., R.F. Evert, and S.E. Eichhorn. 2013. Biology of Plants. W.H. Freeman and Worth Publishers. 7th Ed.
- There is no lab manual for this class. You will be given assignments/worksheets prior to each lab (posted on blackboard).

# Course Requirements:

•	4 Hour Exams (100 pts. each)	400 pts.	A = 100-90%
•	1 Final Exam	150 pts.	B = 89-80%
•	Lecture Activities/Simulations/Quizzes	100 pts.	C = 79-70%
			A = 100-90% B = 89-80% C = 79-70% D = 69-60% F = below 60%
		•	1

12 Lab Handouts
Lab Final Exam/Lab Midterm
12 Lab Attendance and Participation
60 pts.

\_\_\_\_\_<del>\_\_\_\_</del>

Total: 1050 pts

# Tentative Course Outline:

Week	Topic	Lab
1 First class is Jan 15th	Introduction to plant cell	No Lab
	chemistry, structure,	
	function	
2	Photosynthesis	Plant cell structure and
		function
3	Plant cells and tissues,	Primary tissues of stems
	translocation and	and roots
	transpiration	X 6.0
4	Roots, Stems, Leaves	Leaf Structure and
	Exam #1	Function
5	Secondary Growth, Growth	No Lab (Online
	and Development	Simulation)
6	Reproduction, Flowers,	Secondary Growth and
	Fruits, Seeds	Wood Anatomy
		Plant Form, Function,
		Diversity "Greenhouse
		Lab"
7	Early development of the	Flowers, Fruits, and Seeds
	Plant Body	
	Exam #2	
8	Domain Archaea &	Domain Bacteria
	Bacteria, Viruses, Viroids,	Fungi I: Ascomycota and
	Prions	Lichens
9	Kingdom Fungi:	Lab Midterm Exam
	Chytridiomycota,	
	Zygomycota, Ascomycota	
10 Spring Break	No class	No lab
11	Basidiomycota,	Fungi II: Basidiomycota,
	Deuteromycetes, review	Chytridiomycota,
	Exam #3	Zygomycota
12	Deuteromycetes continued	Protista I: Myxomycota,
	_	Euglenophyta,
		Rhodophyta, Dinophyta,
		Oomycota, Chrysophyta

13	Kingdom Protista:	Protista II:
	Myxomycota, Oomycota,	Bacillariophyta,
	Euglenophyta, Rhodophyta,	Phaeophyta, Chlorophyta
	Dinophyta, Chrysophyta,	
	Bacillariophyta	
14	Phaeophyta, Chlorophyta,	Plantae I: Hepatophyta,
	Kingdom Plantae:	Bryophyta, Psilotophyta,
	Bryophyta, Hepatophyta	Lycophyta
15	Psilotophyta, Lycophyta,	Plantae II: Sphenophyta
	Sphenophyta, Pterophyta	and Pterophyta
	Cycadophyta, Ginkgophyta	
	Exam #4	
16	Gnetophyta, Coniferophyta,	Plantae III: Cycadophyta,
	Anthophyta	Coniferophyta,
		Anthophyta
17	Biomes, Plants & Society	Lab Final Exam
	ND Native Species	
	Overview	
Final Exam May 12th @		
9AM		

### <u>Important dates to note:</u>

- 1. There is no lab the first week of classes.
- 2. No class Jan. 20<sup>th</sup>
- 3. No class Feb. 17<sup>th</sup>
- 4. Spring Break Mar. 16-20<sup>th</sup>
- 5. No class Apr. 10/13<sup>th</sup>

General Education Competency/Learning Outcome(s) <u>OR</u> CTE Competency/Department Learning Outcome(s):

- Learning outcome 1: Explains the interrelationships between humans and their environment and the role of science in their lives.
- Learning outcome 2: Demonstrates knowledge and application of technology.

# Relationship to Campus Theme:

- Technological/science developments are discussed in relationship to plants and the relationship of how DNA analysis is changing our approach to classification.
- Understanding plants and, technological/genetic engineering developments in plants and biomes in relation to society.

# Classroom Policies:

#### Absences:

Excused absences will be for only the following reasons and still need to be discussed with me via email, text, or phone call: sickness with a doctor's note must be emailed to me, passing of a close family member, if you're an athlete and need to miss class for a game. If you know you are going to be gone, notify me ASAP. Knowing of an absence requires you to make up work prior to being gone unless a special arrangement has been made with myself.

All requests for absences need to be reported to me immediately and directly from you, not a third party. If you do not let me know why you have missed a class or discuss with me in advanced your participation for that day will result in a ZERO. You need to make advanced arrangements with me—the SOONER THE BETTER. You need to speak with me if you know you will be gone so we can schedule make up assignments

# Missing an Exam:

If you know you will be gone during an exam day you need to let me know THREE days in advanced. If you miss an exam and I am not aware that you were going to miss it then your grade for that exam will result in a ZERO. There will be no make-up exams for those who do not inform me of their absences on exam days.

#### Lab Absence:

Labs are hard to organize and setup. If you are going to absent it is easier to make up the lab up ahead of time instead of after. Simply not showing up for lab, or being greater than 5 min late, will result in forfeiting all participation points and points for the handout if you did not notify the instructor at least 12hrs in advance that you were going to be absent. If you are ill and it is last minute you will need to provide a doctor's note or an e-mail from the school nurse in order to make up the lab.

# Lab Participation Points:

The points are awarded to students that participate equally within their group and arrive on time. Simply showing up to lab does not award you these points. They are awarded at the discretion of the instructor.

#### Late Policy:

If you are planning on being late to class please be respectful of other students in the class and sit towards the back of the room (lecture). Be discrete when opening your belongings and getting prepared. During an exam date the door will be locked after the last student receives their test that was in class on time. If tardiness becomes an issue the door will be locked on all class dates 5 minutes after the start. This will be a regular occurrence for lab. If you are locked out, you will miss/lose that day's materials and all points associated with it.

### Electronic Device Policy:

Electronic devices will only be used in class for answering in-class questions and review participation. You will be instructed to use them at those times. If you are on your phone/unauthorized computer/smart watch/headphones or any other unauthorized device while not instructed by myself then, I will ask you to leave my class for that day. You should not be texting or on social media while in lecture/lab. You cannot be wearing any smart technology during ANY exam. You will be asked to remove it. If you choose to not remove it then you will be asked to leave and you will not be able to complete the exam which will result in a ZERO. All devices should be powered down during an exam. If your device is vibrating or causing a disturbance you may be asked to leave the classroom.

# Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the Campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

# Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Depending on the severity of the occurrence, determined by the instructor, the student will be given a zero on the assignment and the information could be forwarded to the Dean of Academic Affairs. If the occurrence is rendered as substantial the student could fail the course.

# Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services within the first two weeks of the semester to line up accommodations. You can contact the Learning Center in Thatcher 1104 or by phone (701) 228-5477. Please speak with me in person about any disabilities/accommodations. You must inform me that you have testing accommodations **THREE** days before an exam (ie. need extended time).

#### Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB

employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX Webpage.